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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,985	03/17/2004	David E. Halasz	72255/00021	3916
23380	7590	05/23/2006	EXAMINER	
TUCKER, ELLIS & WEST LLP 1150 HUNTINGTON BUILDING 925 EUCLID AVENUE CLEVELAND, OH 44115-1414			HU, JINSONG	
			ART UNIT	PAPER NUMBER
			2154	

DATE MAILED: 05/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

*Supplemental*  
**Office Action Summary**

<b>Application No.</b>	<b>Applicant(s)</b>	
10/802,985	HALASZ, DAVID E.	
<b>Examiner</b>	<b>Art Unit</b>	
Jinsong Hu	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 17 September 2004.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-47 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

***Detailed Action***

1. Claims 1-47 are presented for examination. Claims 19-47 are newly added claims. This is a supplemental Non-final Office Action, which will replace the Non-final Action mailed on 2/8/06.
2. Claim 9 is objected because a dependent claim cannot depend on itself. Correction is required.

***Double Patenting***

3. Claims 1-17 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of U.S. Patent No. 6,732,163 (hereafter as 163'). Although the conflicting claims are not identical, they are not patentably distinct from each other because both of this application and the patent 163' disclose the same method and system for selecting and operating frequency, except this application claimed the device is "an access point" while the patent 163' claimed the device "a communication device", it is obvious to a person of ordinary skill in the art at the time the invention was made that "a communication device" is a access point.

4. The non-statutory double patenting rejection, whether of the obviousness-type or non-obviousness-type, is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper

timewise extension of the "right to exclude" granted by a patent, the possible harassment by multiple assignees, and the possibility that one might avoid the effect of file wrapper estoppel by filing a second application. *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); and *In re Goodman*, 29 USPQ2d 2010 (Fed. Cir. 1993).

5. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(b) and (c) may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.78(d).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

#### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-22, 27, 30-31, 36-41 and 44-47 are rejected under 35 U.S.C. 102(e) as being anticipated by Jaszewski et al. (US 6,208,629 B1).

8. As per claim 1, Jaszewski teaches a method comprises of the steps of:  
interrogating one or more of the existing access points to obtain communication parameter data indicative of at least the operating frequencies in use by the existing access points [col. 2, lines 32-50; col. 4, lines 33-39];  
evaluating the communication parameter data for each of the existing access point [col. 2, lines 51-58; col. 4, lines 8-17; col. 6, lines 26-41]; and  
selecting an operating frequency of the access point being added to the wireless communications network in accordance with said evaluated communication parameter data [col. 2, lines 64-67; col. 4, lines 33-36 & 41-45; col. 11, lines 23-27].

9. As per claim 2, Jaszewski teaches the step of sending at least one request signal at each of a plurality of operating frequencies, wherein any existing access point receiving the at least one request signal transmits a response signal indicative of receipt of said request signal [col. 5, line 61 – col. 6, line 12].

10. As per claim 3, Jaszewski teaches that the communication parameter data includes a value indicative of the received signal strength of received response signals ["Signal Strength" on tables 311-314, Fig. 3; col. 9, lines 7-10].

11. As per claim 4, Jaszewski teaches the step of determining a value indicative of how many of the existing access points use each operating frequency [col. 2, lines 34-40].

12. As per claim 5, Jaszewski teaches that the communication parameter data includes a value which indicates a load factor associated with a respective access point [AP # on tables 311-314, Fig. 3].

13. As per claim 6, Jaszewski teaches the step of determining which operating frequency will result in the greatest balance among the operating frequencies being used [col. 3, line 66 – col. 4, line 17].

14. As per claim 7, Jaszewski teaches the step of transmitting at the communication device being added, at least one request signal at each of a plurality of operating frequency, wherein any existing communication device receiving the at least request signal transmits a response signal indicative of a receipt of said request signal [col. 5, line 61 – col. 6, line 12].

15. As per claim 8, Jaszewski teaches the step of selecting the least an optimum used non-overlapping operating frequency [col. 9, lines 57-61].

16. As per claim 9, Jaszewski teaches the step of selecting least used non-overlapping operating frequency [col. 9, lines 57-61].
17. As per claim 10, Jaszewski teaches that the communication device is an communication device and said existing communication devices are communication devices [111, 112, 113 etc., Fig. 1].
18. As per claim 11, since it is an apparatus claim of claim 1, it is rejected under the same basis as claim 1 above.
19. As per claim 12, since it is an apparatus claim of claim 2, it is rejected under the same basis as claim 2 above.
20. As per claim 13, since it is an apparatus claim of claim 3, it is rejected under the same basis as claim 3 above.
21. As per claim 14, since it is an apparatus claim of claim 4, it is rejected under the same basis as claim 4 above.
22. As per claim 15, since it is an apparatus claim of claim 5, it is rejected under the same basis as claim 5 above.

23. As per claim 16, since it is an apparatus claim of claim 6, it is rejected under the same basis as claim 6 above.

24. As per claim 17, since it is an apparatus claim of claim 8, it is rejected under the same basis as claim 8 above.

25. As per claim 18, Jaszewski teaches the communication device is an access point and the existing communication devices are access points [111, 112, 113 etc., Fig. 1].

26. As per claim 19, Jaszewski teaches a method for a wireless base unit to select an operating frequency, comprising:

determining for each of a plurality of frequencies whether another base unit is using each of the plurality of frequencies [col. 2, lines 51-58; col. 4, lines 8-17; col. 6, lines 26-41]; and

selecting the operating frequency based on whether another base unit is detected using the selected frequency [col. 2, lines 64-67; col. 4, lines 33-36 & 41-45; col. 11, lines 23-27].

27. As per claim 20, Jaszewski teaches the selected operating frequency is the least used non-overlapping frequency of the plurality of frequencies [col. 2, lines 64-67; col. 4, lines 33-36 & 41-45; col. 11, lines 23-27].

28. As per claim 21, Jaszewski teaches the step of sending a request signal requesting base units receiving the signal respond to the request signal: wherein the determining step further comprises waiting for a response to the request signal [col. 5, lines 33-54].

29. As per claim 22, Jaszewski teaches the request signal is sent on each of the plurality of frequencies [col. 5, lines 33-54].

30. As per claim 27, Jaszewski teaches the step of measuring the signal strength of the response to the request signal [col. 8, lines 28-40].

31. As per claim 30, Jaszewski teaches the invention as claimed including a method for selecting as operating frequency for a wireless base unit, comprising:

determining how many other base units are operating at each of a plurality of frequencies [Fig. 4; col. 10, lines 14-44]; selecting the operating frequency based on how many other base units are using the selected operating frequency [col. 9, lines 36-50; col. 10, lines 45-51].

32. As per claim 31, Jaszewski teaches the selected operating frequency is the least used non-overlapping frequency of the plurality of frequencies [col. 9, lines 36-50; col. 10, lines 45-51].

33. As per claim 36, since it is a system claim of claim 30, it is rejected for the same basis as claim 30 above.

34. As per claim 37, since it is a system claim of claim 31, it is rejected for the same basis as claim 31 above.

35. As per claim 38, since it is a system claim of claim 21, it is rejected for the same basis as claim 32 above.

36. As per claim 39, Jaszewski teaches the transceiver measuring the signal strength of the response to the request packet, the controller being responsive to the transceiver to select the operating frequency based on the number of access points operating at each of the plurality of frequencies and the signal strength [col. 9, lines 36-50; col. 10, lines 14-50].

37. As per claim 40, since it discloses the same limitation as claim 5, it is rejected for the same basis as claim 5 above.

38. As per claim 41, since it discloses the limitation as claim 6, it is rejected for the same basis as claim 6 above.

39. As per claim 44, since it is a computer program claim of claim 1, it is rejected for the same basis as claim 1 above.

40. As per claim 45, since it is a computer program claim of claim 4, it is rejected for the same basis as claim 4 above.

41. As per claim 46, since it is a process claim of claim 8, it is rejected for the same basis as claim 8 above.

42. As per claim 47, since it is a process claim of claim 3, it is rejected for the same basis as claim 3 above.

43. Claims 28-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Sharma et al. (US 6,069,871).

44. As per claim 28, Sharma teaches the invention as claimed including a method for a wireless base unit to select an operating frequency, comprising:

detecting other base stations operating on each of a plurality of frequencies [col. 7, lines 9-12; col. 12, lines 49-55];

obtaining information concerning the load on the other base stations [col. 7, lines 12-16 & 42-46; col. 12, lines 55-60]; and

selecting the operating frequency based on the load on the other base stations [col. 7, lines 16-20 & 46-48; col. 9, lines 11-29; col. 12, lines 60-63; i.e., selects one of the base station means selecting one operating frequency since one base station operated on one carrier frequency].

45. As per claim 29, Sharma teaches the step of sending a request signal requesting base units receiving the signal respond to the request signal; wherein the obtaining step further comprises receiving load data from a data field in the response to the request signal from other base stations [col. 7, lines 8-26 & 36-53; col. 12, lines 49-66].

***Claim Rejections - 35 USC § 103***

46. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

47. Claims 23-26 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jaszewski et al. (US 6,208,629 B1) as applied to claims 1-22, 27, 30-31, 36-41 and 44-47 above.

48. As per claim 23, Jaszewski teaches the invention substantially as claimed in claim 11. Jaszewski does not specifically teach waiting a predetermined tune period for

the response to the request signal. However, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the predetermined time in Jaszewski's system because it is a well-known feature in the art for waiting a response from the other device.

49. As per claim 24, Jaszewski teaches the invention substantially as claimed in claim 11. Jaszewski does not specifically teach waiting at least 10 milliseconds for the response to the request signal. However, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the predetermined time in Jaszewski's system because it is a well-known feature in the art for waiting a response from the other device.

50. As per claim 25, Jaszewski teaches the request signal is one of a probe request packet, a find router packet and a router identification packet [col. 6, lines 21-29].

51. As per claim 26, Jaszewski teaches the invention substantially as claimed in claim 11. Jaszewski does not specifically teach the step of sending the request signal at least three times. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include repeated sending step because doing so would avoid some devices do not response to the signal caused by not receiving the request signal and enable the system collect more accurate information from the devices.

52. As per claim 32, Jaszewski teaches invention substantially as claimed in claim 30. Jaszewski does not specifically teach the step of waiting a predetermined time for a response to the request signal. However, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the predetermined time in Jaszewski's system because it is a well-known feature in the art for waiting a response from the other device.

53. As per claim 33, Jaszewski teaches the step of measuring the signal strength of the response to the request signal [col. 8, lines 28-40; col. 9, lines 36-50] and selecting the operating frequency based on how many other base stations are using the selected operating frequency and signal strength [col. 9, lines 36-50; col. 10, lines 45-51].

54. Claims 34-35 and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma et al. (US 6,069,871) in view of Jaszewski (US 5,933,420).

55. As per claim 34, Sharma teaches the invention substantially as claimed including a method for a wireless base unit to select an operating frequency, comprising:

obtaining information concerning the load on the other base stations [col. 7, lines 12-16 & 42-46; col. 12, lines 55-60];

selecting the operating frequency based on how many other base stations are using the selected operating frequency and the load on the other base stations [col. 7,

lines 16-20 & 46-48; col. 9, lines 11-29; col. 12, lines 60-63; i.e., selects one of the base station means selecting one operating frequency since one base station is operated on one carrier frequency].

56. Sharma does not specifically teach the step of selecting the operating frequency based on measured signal strength. However, Jaszewski on the other hand teaches the step of selecting the operating frequency based on measured signal strength [col. 9, lines 36-50; col. 10, lines 45-51]. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include Jaszewski's selection step in Sharma's system because it is a well-known method in the art for channel assignment.

57. As per claim 35, Sharma teaches the steps of sending a request signal requesting base units-receiving the signal respond to the request signal; wherein the obtaining step further comprises receiving load data from a data field in the response to the request signal from other base stations [col. 7, lines 12-16 & 42-46; col. 12, lines 55-60].

58. As per claim 42, since it is an apparatus claim of claim 34, it is rejected for the same basis as claim 34 above.

59. As per claim 43, Sharma teaches the step of selecting the operating frequency based on which frequency will cause the least amount of interference with communications being conducted by other access points [col. 7, lines 16-20 & 46-48; col. 9, lines 11-29; col. 12, lines 60-63].

60. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jaszewski (US 5,933,420) in view of Sharma et al. (US 6,069,871).

61. As per claim 48, Jaszewski teaches the invention substantially as claimed in claim 44. Jaszewski does not specifically teach the step of selecting the operating frequency based on the load on the other base station. However, Sharma on the other hand teaches the step of selecting the operating frequency based on the load on the other base station [col. 7, lines 16-20 & 46-48; col. 9, lines 11-29; col. 12, lines 60-63]. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to add Sharma's selecting step in Jaszewski's system because doing so would balance the load between the base stations and avoid overload error occurred in the base station.

### ***Conclusion***

62. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Nakano (US 6,032,046) discloses a base station frequency assigning system;  
and

H'mimy et al (US 6,195,554 B1) discloses a system for assigning transmission  
channels.

63. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jinsong Hu whose telephone number is (571) 272-3965. The examiner can normally be reached on 8:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A. Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jinsong Hu

April 28, 2006